

JAN 16 2007

Application No. 10/749,269

AMENDMENTS TO THE SPECIFICATIONIn the Specification

Please substitute the following amended paragraph(s) and/or section(s) (deleted matter is shown by strikethrough and added matter is shown by underlining):

Page 13, line 18 – page 14, line 26

The electrically insulating substrate may be paper or a film forming polymer such as polyester (e.g., polyethylene terephthalate or polyethylene naphthalate), polyimide, polysulfone, polypropylene, nylon, polyester, polycarbonate, polyvinyl resin, polyvinyl fluoride, polystyrene and the like. Specific examples of polymers for supporting substrates included, for example, polyethersulfone (~~Stabar~~TM STABARTM S-100, available from ICI), polyvinyl fluoride (~~Tedlar~~[®], TEDLAR[®] available from E.I. DuPont de Nemours & Company), polybisphenol-A polycarbonate (~~Makrofol~~TM MAKROFOLTM, available from Mobay Chemical Company) and amorphous polyethylene terephthalate (~~Melinar~~TM MELINARTM, available from ICI Americas, Inc.). The electrically conductive materials may be graphite, dispersed carbon black, iodine, conductive polymers such as polypyrroles and Calgon[®] CALGON[®] conductive polymer 261 (commercially available from Calgon Corporation, Inc., Pittsburgh, Pa.), metals such as aluminum, titanium, chromium, brass, gold, copper, palladium, nickel, or stainless steel, or metal oxide such as tin oxide or indium oxide. In embodiments of particular interest, the electrically conductive material is aluminum. Generally, the photoconductor substrate has a thickness adequate to provide the required mechanical stability. For example, flexible web substrates

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generally have a thickness from about 0.01 to about 1 mm, while drum substrates generally have a thickness from about 0.5 mm to about 2 mm.

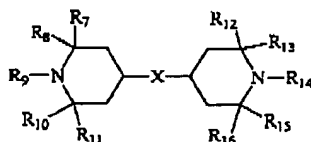
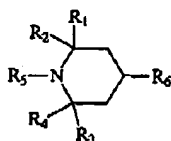
The charge generating compound is a material that is capable of absorbing light to generate charge carriers, such as a dye or pigment. Non-limiting examples of suitable charge generating compounds include, for example, metal-free phthalocyanines (e.g., ELA 8034 metal-free phthalocyanine available from H.W. Sands, Inc. or Sanyo Color Works, Ltd., CGM-X01), metal phthalocyanines such as titanium phthalocyanine, copper phthalocyanine, oxytitanium phthalocyanine (also referred to as titanyl oxyphthalocyanine, and including any crystalline phase or mixtures of crystalline phases that can act as a charge generating compound), hydroxygallium phthalocyanine, squarylium dyes and pigments, hydroxy-substituted squarylium pigments, perylimides, polynuclear quinones available from Allied Chemical Corporation under the trade name Indefast® INDOFAST® Double Scarlet, Indefast® INDOFAST® Violet Lake B, Indefast® INDOFAST® Brilliant Scarlet and Indefast® INDOFAST® Orange, quinacridones available from DuPont under the trade name Monastral™ MONASTRAL™ Red, Monastral™ MONASTRAL™ Violet and Monastral™ MONASTRAL™ Red Y, naphthalene 1,4,5,8-tetracarboxylic acid derived pigments including the perinones, tetrabenzoporphyrins and tetranaphthaloporphyrins, indigo- and thioindigo dyes, benzothioxanthene-derivatives, perylene 3,4,9,10-tetracarboxylic acid derived pigments, polyazo-pigments including bisazo-, trisazo- and tetrakisazo-pigments, polymethine dyes, dyes containing quinazoline groups, tertiary amines, amorphous selenium, selenium alloys such as selenium-tellurium, selenium-tellurium-arsenic and selenium-arsenic, cadmium sulphoselenide, cadmium selenide, cadmium sulphide, and mixtures thereof. For some embodiments, the charge generating compound comprises

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oxytitanium phthalocyanine (e.g., any phase thereof), hydroxygallium phthalocyanine or a combination thereof.

Page 15, line 18 – page 16, line 5

Non-limiting examples of suitable light stabilizer include, for example, hindered trialkylamines such as ~~Tinuvin~~ TINUVIN® 144 and ~~Tinuvin~~ TINUVIN® 292 (from Ciba Specialty Chemicals, Terrytown, NY), hindered alkoxydialkylamines such as ~~Tinuvin~~ TINUVIN® 123 (from Ciba Specialty Chemicals), benzotriazoles such as ~~Tinuvin~~ TINUVIN® 328, ~~Tinuvin~~ TINUVIN® 900 and ~~Tinuvin~~ TINUVIN® 928 (from Ciba Specialty Chemicals), benzophenones such as ~~Sanduvor~~ SANDUVOR® 3041 (from Clariant Corp., Charlotte, N.C.), nickel compounds such as ~~Arbestab~~ ARBESTAB™ (from Robinson Brothers Ltd, West Midlands, Great Britain), salicylates, cyanocinnamates, benzylidene malonates, benzoates, oxanilides such as ~~Sanduvor~~ SANDUVOR® VSU (from Clariant Corp., Charlotte, N.C.), triazines such as ~~Cyagard~~ CYAGARD™ UV-1164 (from Cytec Industries Inc., N.J.), polymeric sterically hindered amines such as ~~Luchem~~ LUCHEM™ (from Atochem North America, Buffalo, NY). In some embodiments, the light stabilizer is selected from the group consisting of hindered trialkylamines having the following formula:



where R₁, R₂, R₃, R₄, R₆, R₇, R₈, R₁₀, R₁₁, R₁₂, R₁₃, R₁₄, R₁₅ are, each independently, hydrogen, alkyl group, or ester, or ether group; and R₅, R₉, and R₁₄ are, each independently, alkyl group;

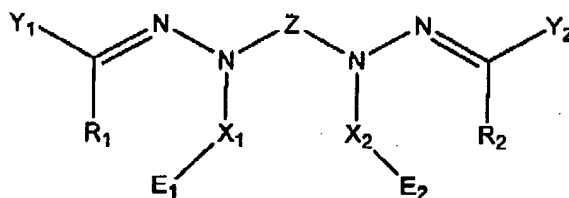
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and X is a linking group selected from the group consisting of $-O-CO-(CH_2)_m-CO-O-$ where m is between 2 to 20.

Page 3, line 19, – Page 4, line 9

In a first aspect, an organophotoreceptor comprises an electrically conductive substrate and a photoconductive element on the electrically conductive substrate, the photoconductive element comprising:

(a) a charge transport material having the formula



where Y_1 and Y_2 are, each independently, an arylamine group;

R_1 and R_2 comprise, each independently, H, an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group;

X_1 and X_2 , each independently, are bridging groups, such as groups having the formula $-(CH_2)_m-$, branched or linear, where m is an integer between 0 and 20, inclusive, and one or more of the methylene groups is optionally replaced by O, S, C=O, O=S=O, a heterocyclic group, an aromatic group, urethane, urea, an ester group, an NR_3 group, a CHR_4 group, or a CR_5R_6 group where R_3 , R_4 , R_5 , and R_6 comprise, each independently, H, hydroxyl group, thiol group, an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group;

E_1 and E_2 are, each independently, an epoxy group; and

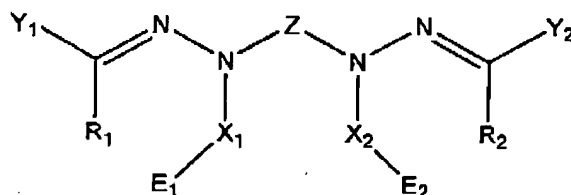
Z is a linking group comprising an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group; and

(b) a charge generating compound.

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Page 5, line 1-line 17

In a fifth aspect, the invention features a polymeric charge transport compound prepared by the reaction of a functional group in a polymeric binder with at least an epoxy group in a compound having the formula



where Y₁ and Y₂ are, each independently, an arylamine group;

R₁ and R₂ comprise, each independently, H, an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group;

X₁ and X₂, each independently, are bridging groups, such as groups having the formula $-(CH_2)_m-$, ~~branched or linear~~, where m is an integer between 0 and 20, inclusive, and one or more of the methylene groups is optionally replaced by O, S, C=O, O=S=O, a heterocyclic group, an aromatic group, urethane, urea, an ester group, an NR₃ group, a CHR₄ group, or a CR₅R₆ group where R₃, R₄, R₅, and R₆ comprise, each independently, H, hydroxyl group, thiol group, an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group;

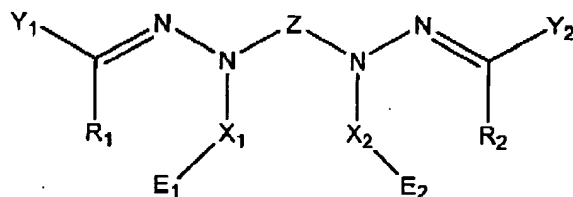
E₁ and E₂ are, each independently, an epoxy group; and

Z is a linking group comprising an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group.

Page 10, line 9 – line 24

As described herein, an organophotoreceptor comprises a charge transport material having the formula

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where Y_1 and Y_2 are, each independently, an arylamine group;

R_1 and R_2 comprise, each independently, H, an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group;

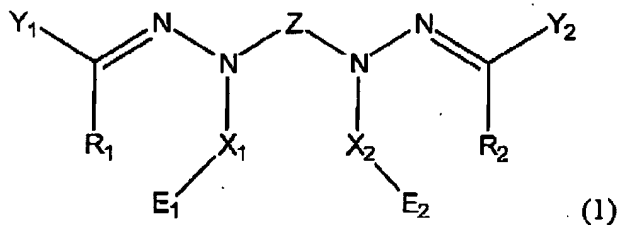
X_1 and X_2 , each independently, are bridging groups, such as groups having the formula $-(CH_2)_m-$, ~~branched or linear~~, where m is an integer between 0 and 20, inclusive, and one or more of the methylene groups is optionally replaced by O, S, C=O, O=S=O, a heterocyclic group, an aromatic group, urethane, urea, an ester group, an NR_3 group, a CHR_4 group, or a CR_5R_6 group where R_3 , R_4 , R_5 , and R_6 comprise, each independently, H, hydroxyl group, thiol group, an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group;

E_1 and E_2 are, each independently, an epoxy group; and

Z is a linking group comprising an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group.

Page 23, line 25 – page 24, line 13

As described herein, an organophotoreceptor comprises a charge transport material having the formula



(1)

where Y_1 and Y_2 are, each independently, an arylamine group;

R_1 and R_2 comprise, each independently, H, an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group;

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X_1 and X_2 , each independently, are bridging groups, such as groups having the formula $-(CH_2)_m-$, ~~branched or linear~~, where m is an integer between 0 and 20, inclusive, and one or more of the methylene groups is optionally replaced by O, S, C=O, O=S=O, a heterocyclic group, an aromatic group, urethane, urea, an ester group, an NR_3 group, a CHR_4 group, or a CR_5R_6 group where R_3 , R_4 , R_5 , and R_6 comprise, each independently, H, hydroxyl group, thiol group, an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group;

E_1 and E_2 are, each independently, an epoxy group; and

Z is a linking group comprising an alkyl group, an alkenyl group, a heterocyclic group, or an aromatic group.

E_1 and E_2 each can be, independently, an oxiranyl ring.